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Memo

Bourne & Shepherd page 11

Photographs - Indian

antiquities of Upper India

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CORRESPONDENCE

ON THE

SUBJECT OF THE EXTENSION OF ART EDUCATION
IN DIFFERENT PARTS OF INDIA.



CORRESPONDENCE

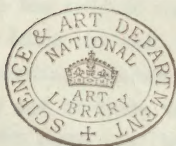
ON THE

SUBJECT OF THE EXTENSION OF ART EDUCATION
IN DIFFERENT PARTS OF INDIA.

BY

ALEX. HUNTER, M. D., F. R. C. S. E.,

SUPERINTENDENT SCHOOL OF INDUSTRIAL ARTS.



MADRAS:

GANTZ BROTHERS,

PRINTED AT THE ADELPHI PRESS, 175, MOUNT ROAD.

1867.

28. 8. 69

CORRESPONDENCE

COMMITTEE OF THE LIAISON OF THE AIR FORCE
ON THE FRONTIERS OF INDIA

ALICE HUNTER, M.D., F.R.C.S.D.



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SCHOOL OF INDUSTRIAL ARTS,
MADRAS, April 1867.

From

ALEX. HUNTER, ESQ., M.D., F.R.C.S.E.,
Superintendent, School of Industrial Arts.

To

E. B. POWELL, ESQ., M.A., C.S.I.,
Director of Public Instruction.

SIR,—I have the honour to request you will do me the favour to bring to the notice of His Excellency the Governor in Council, the following correspondence on the subject of the extension of art education in different parts of India.

2. During my recent tour of inspection of schools of art and exhibitions made with the sanction of Government, I was much struck with the strong desire evinced by the natives for acquiring a knowledge of drawing or some of its applications to industrial or manufacturing art; considerable progress has already been made in some branches of art by the pupils in schools which I inspected, and arrangements have been completed for gradually supplying the wants of the students, by providing them with progressive series of lessons in elementary outline, free hand-drawing from objects, plants, figures, animals, and designs selected from nature in India, as well as from the best studies used in European schools of design.

3. Arrangements are also in progress for supplying casts of ornament in plaster of paris, wax, terracotta and bronze from different sources, European as well as Eastern, and to teach the applications of these to useful or decorative purposes. Casts are being made in plaster from well-selected hands and feet of the finest statues of antiquity, and of living models, used in schools of art in London, Paris, and Rome. A fine series of casts of hands, arms, and feet of the native tribes of Southern India has been taken from living nature, for use in teaching drawing and modelling; plaster casts have also been taken of some fine statues of antiquity, and of busts, animals and figures in marble, bronze and plaster procured from Rome and Paris, and other studies of this kind are shortly expected.

4. In the department of manufacturing industry, complete sets of tools of the best patterns and finest quality have been procured from Europe for carpentry, carving, modelling, engraving, punching, and chasing in metals. These have been copied in the best steel, ivory, and gun-metal, and supplied .

to some schools of art. Rudimentary lessons in practical geometry and in carpentry and joinery, carving, and blacksmith's work have been engraved and distributed. Practical lessons and working models in simple carpentry, joinery and blacksmith's work are in progress, for teaching the rudiments of these branches of industry, which are still very defective in many parts of India.

5. At Bombay I visited frequently the school of arts established by Sir Jamsetjee Jeejeebhoy, Bart. About five years ago I was requested by Sir Bartle Frere, the Governor of Bombay, to draw up suggestions for the establishment and management of this school. These suggestions had been carried out, and I found an admirable school of industrial arts under a very efficient set of teachers of drawing and painting, wood engraving, modelling, and casting, working in iron and metals and architecture. Five teachers of practical art had been sent from the Kensington School of Design, London, and the school had been furnished with a good set of lessons, fine sets of casts, and a small, but excellent library of illustrated standard works on art. I was much pleased with the selection of studies provided for the students, with the systematic courses of instruction, and with the drawing lessons and designs by some of the teachers. I was glad to find that the Bombay Government had sanctioned the sum of 8½ lakhs of Rupees for providing a suitable building for this school and for furnishing it properly, and that several orders for decorating public buildings in Bombay and Poonah had been given to be executed in the school. I offered some practical suggestions to the Masters regarding the internal management of the school, and the class of pupils for the different departments. For further particulars regarding the state of arts and manufactures in Bombay, see the correspondence with Sir Bartle Frere, Dr. Wilson, and J. Griffiths, Esq.

6. At Surat I found a very interesting school of arts established by the liberality of a wealthy native Parsee gentleman, Cursetjee Fundonjee Paruck, and under the management of a Committee. In this school there were about 55 pupils, 30 of them receiving instruction in drawing and 25 in carpentry. I had been asked, about nine months previously, to draw up suggestions for its establishment, and to provide drawing lessons. This I had done, and found that the pupils were being conscientiously and carefully taught Drawing by a teacher named Jamasjee from the Bombay school, and a carpenter named Eduljee from Surat. For address delivered to the pupils in this school and correspondence with the Secretary, see Appendix.

More advanced drawing lessons, casts, tools and working models in carpentry and joinery are just about to be sent to this school, from Madras, and two of the prize pupils are to be sent to Bombay for instruction in higher departments of art.

Bombay Jylosa
Surat
Madras
Poonah
Raipur
Calcutta

Safaye 16
18 Schooling x. 6

Technical 2/10

7. At Poonah I found that industrial arts had been encouraged amongst the European soldiers in barracks, at the recommendation of His Excellency Sir Robert Napier, Commander-in-Chief, and that an exhibition of their works had been very successful and had proved of benefit to all classes. An excellent tent manufactory had been commenced in the jail as an employment for the prisoners and was successfully conducted under the management of Dr. Beattie. I also found that ornamental carving in wood had been carried to considerable perfection by the natives of Poonah, and that photography had been very successfully practised by the sons of an influential Parsee gentleman, Puddonjee Pestonjee Khan Bahadoor, who seemed to be a great patron of the fine arts. Portrait painting in oils had met with great encouragement at Poonah, and Mr. Jansen, an artist from Europe, had painted a number of good portraits. The proposed Government House at Ganesh Khind, in the vicinity of Poonah, designed by Messrs. Trubshore and Co., promises to be a fine building; some of the decorations for this are being executed in the school of arts, Bombay. Mr. Deschamps, of Madras, is to supply the carved furniture, I believe.

8. At Nagpore I found that two branches of industrial art have been carried to great perfection, and as the materials for these are abundant, I recommended that steps should be taken for their encouragement. One is carving in sandstone and soapstone; some of the designs for cornices, slabs, vases, and garden ornaments, that have recently been executed in stone, are cut with great precision and are in a good style of art. Some of the decorations in stone about the Gol Bagh and Palace of Nagpore are in excellent taste; copies of some of these have been ordered for the Madras School of Arts as fine studies of ornament, judiciously and tastefully applied. The other branch of industrial art at Nagpore, deserving of encouragement, is working in copper, bell metal and brass, the vessels have engraved ornaments on their surface. Many of the articles thus produced are elegant and simple in form, with the designs appropriately and tastefully applied. After a careful examination of the minerals, rocks, stones, and metals in the Museum, and exploring a little of the country in the vicinity of Nagpore, in company with C. Bernard, Esq., Secretary to the Chief Commissioner, I found that there were great varieties of sandstone and building stones, several useful clays and porcelain materials, and on the banks of the river at Kamptee, a thick bed of clay, of first rate quality for bricks. The attention of the Chief Commissioner was drawn to these facts and to the abundance of fire-clays and materials for pottery at Jubbulpore, as well as to the fine quality of the white statuary marbles of the Nerbudda, and steps have been taken to utilize the marbles, clays, and pottery materials of these territories. For further particulars, see correspondence with C. Bernard, Esq., Capt. W. Vertue, Assistant Commissioner, Saugor, and Capt.

what style?

Lugard, Asst. Commissioner, Raipore. Arrangements have been made to establish a school of industrial arts at Raipore, to improve the pottery in the jail at Jubbulpore, and to introduce Drawing into the vernacular schools at Nagpore, Saugor, and Jubbulpore. A young man has been sent to teach Drawing at the latter station, and a teacher of pottery is about to be sent to Raipore in a few days. I inspected carefully the school of industry at Jubbulpore under Major R. Ranken, and found the prisoners profitably employed in making tents, weaving carpets, spinning rope and thread, printing tent cloths, and engraving the wood blocks; some casts in dammer and wax, of arms, hands and feet of native tribes were left with Capt. M. R. Ricketts, to be copied in marble from the Nerbudda.

The exhibition at Jubbulpore proved successful, and gave a great stimulus to the industry and commerce of the district. The departments of raw produce, tools and machinery, and the fine arts, proved the most attractive. Prizes were awarded for carved furniture, worked dresses and muslins from Madras, and carved sandalwood and ivory from Vizagapatam.

9. During my visit to Agra, I inspected the large central jail, one of the best conducted and most orderly workshops in Upper India, where upwards of 8,000 prisoners are employed in making thread, string and rope, weaving cloth, mats and carpets, making paper, printing, blacksmith's and carpenter's work. The order, cleanliness, and discipline in this jail are admirable, and the percentage of sickness very trifling. The public buildings in Agra are very imposing and being mostly of white marble, they are in a good state of preservation. The finest are the Taj, the Pearl Mosque or Motee Musjid, and the Marble Palace of Akbar, Shah Jehan's and Jehanghir's palaces, and the tomb of Etmad Dowlah. Very fine photographs of these buildings, and of most of the antiquities of Upper India have been taken by Messrs. Bourne and Sheppard; some of these were purchased for the Madras School of Arts as studies of architecture and ornament. I devoted four days to the inspection of the Agra Exhibition, which was probably the best that has been held in India. The departments were nearly all thoroughly well represented. The most important seemed to be the cotton and fibrous substances, the grains, cereals and pulses, dyes, gums, and resins, timbers and useful minerals. Amongst the latter were very rich ores of copper, lead, iron, and manganese; fine series of marbles, sandstones, gypsum, building rocks and cements; bitumen, paraffine naphtha and vegetable wax; materials for porcelain and pottery; a great variety of alkaline earths and salts; good series of iron ores; bar-iron and steel were exhibited from Roorkee in all states, with the various kinds of fuel and coal used in their manufacture. The departments of silk and cotton-woven fabrics, of embroidery and woollen manufactures were very gorgeous. The finest works in glass, porcelain, and parian, were of European manufac-

ture. Many of the native manufactures in metal, enamels, inlaid arms and cutlery, carvings in ivory and sandalwood, filagree and other works in gold and silver, were very tasteful. The machinery in motion, tools and implements were thoroughly well represented, and extensive sales were effected in this department. The results of an exhibition of this kind must be highly beneficial to all classes of the community, though it may be some time before the practical benefits become apparent amongst the natives.

10.—At Secundra, twelve miles from Agra, there is a very interesting Orphanage, with about 300 children of different ages, who were rescued after the mutinies. They are under the care of the Rev. Aug. and Mrs. Daeublé of the German Mission.

The tomb of Akbar's Christian wife, Mary, has been devoted partly to the education of these children, and printing and book-binding are carried on in the verandahs of the tomb, the central parts being shut-up. Commodious and airy apartments have been built in the vicinity, and an appropriate and neat church, where divine service is conducted in the vernaculars, Oordoo and Hindee. The children are taught reading, writing, and arithmetic, both in English and the vernaculars, singing, printing, book-binding, carpentry, tailoring, and blacksmith's work. Arrangements are being made for engaging a good book-binder, and letterer, and for providing a cylinder rolling press and some wood-cuts and type metal blocks for illustrating vernacular school books to be published at Secundra.

11.—The next place which I visited was the palace of the young Rajah of Bhurtpore, forty miles west of Agra, a fine building composed of sandstone and grey marble, beautifully carved in the Rajpoot style of architecture. The great hall of audience, the court of reception, and the hall for dancing girls are all very striking, and the massive marble pillars, with the boldly-designed floriated ornaments, are all in good and purely oriental style, not unlike the best periods of Renaissance architecture and ornament. The old mud fort is interesting from having stood two long sieges, and the heavy guns of wrought iron, 18 feet long by 2 feet in diameter with a bore of $6\frac{1}{2}$ inches, looked formidable weapons, and are very similar in construction to the modern Armstrong guns, but without their fine finish.

12.—About twenty-four miles from Bhurtpore I stopped to examine the tomb of a Rajpoot, Thakoor, who died at Helena. Around it are several elegant chuttrums, where his widows had performed suttee; the proportions in these buildings are very symmetrical, and they are remarkable for their simplicity and elegance. The old Rajpoot architecture differs slightly from the Mahomedan, though it resembles it in some of its leading characters, namely, a square surmounted by a semi-circular dome and raised upon a pediment either of the same or a larger size, and four, eight, or sixteen pillars to sup-

port the dome. In the Rajpoot style the dome is more pointed, the pillars tapering and slender, and the overhanging cornice broader than in Mahomedan architecture. Both styles seem to be more elegant than Hindoo architecture, and they appear to have more of the elements of stability and permanence in their construction than Hindoo, Gothic, or modern European styles. The chief fault observable in Hindoo architecture is, that it is too massive and so over-loaded with ornament, that the buildings seem as if they would collapse from their own weight, which many of them have done before they could be completed. Many of the gothic cathedrals of Great Britain have not been nearly so durable as the Rajpoot and Mahomedan tombs of India. I allude to this, as there seems to be a strong desire to introduce Gothic architecture into India, and I believe it has not the elements of stability that are to be found in the Grecian, Mahomedan, or Rajpoot styles, the last of which seems particularly well adapted to the requirements of a warm climate.

13.—I received an invitation to visit the territories of His Highness the Maharajah of Jeypore, and I inspected parts of them and the old citadel and palaces of Amber and Jeypore, in company with Dr. J. Valentine, with the view of ascertaining what are the resources of these territories, and whether it would be possible to establish a school of industrial arts. I met with a most cordial reception from His Highness the Maharajah and Major Beynan, the Political Agent. By having had an elephant, camels and horses placed at our disposal, Dr. Valentine and I were enabled to accomplish a good deal within eight days. I was much pleased to find the district so rich in mineral wealth, and the natives so dexterous in working marble for statuary and architectural purposes, besides having preserved the old art of making and glazing pottery and porcelain. We found some very interesting specimens of these in the old palace of Amber, showing that the art had attained to great perfection three hundred years ago in Upper India. Samples of tiles were collected, that showed a knowledge of modelling, working from plaster moulds, painting, and coloring, gilding upon porcelain and upon colored clays, with green, yellow, blue, and black colors. Enamelled tiles, similar to those of the tombs of Golcondah and Scinde were also found, and the disputed question of the mode of production of these, was determined, by testing the surface on which the colors had been applied. It was generally thought that this enamel was applied over a thin surface of chunam, and upon red bricks, but on carefully removing the tiles from the wall, it was ascertained that colors and glazes had been fixed on a thin tile of fine white porcelain, about a quarter of an inch in thickness, applied to a red tile by a layer of chunam on plaster of paris, or sometimes applied on a surface of stone or marble. The tiles were colored with cobalt, with a true porcelain glaze well vitrified, but much spotted with dust. The efforts that are being made to discover the

resources of the Jeypore territories, to introduce useful trades and occupations, to establish a school of industrial arts, a public library and museum, schools for female education, and to find honest and remunerative employment for prisoners in jails are likely to be productive of good results. For further particulars see correspondence with His Highness the Maharajah of Jeypore and Major Beynan Political Agent. Arrangements have been made to send several teachers from Madras for the School of Arts, and to supply drawing lessons and tools, models and casts to be copied in statuary marble.

14.—I was detained longer on the way from the Central Provinces to Jeypore than I expected, by inclement weather and flooded rivers, and in consequence, I was unable to visit Lucknow and Colgong, where there are interesting departments of art manufacture, but the correspondence with Dr. Bonavia, regarding the establishment of a school of arts and museum at Lucknow, and with Heera Lal Seal regarding his pottery establishment at Colgong, will show what has been done. The modelled clay figures of Lucknow are full of character and expression, and show great talent for representing individuality and energy of purpose. Arrangements have been made for improving the modelling of the hands, feet, and limbs of these figures, which are not so good as the heads. The glazed pottery of Colgong is very fair, and this branch of industry is likely to prove remunerative ere long. The materials are as fine as those of Europe or China.

15.—At Calcutta I inspected carefully the Government School of Arts under the direction of J. Hover Locke, Esq., from the Kensington School of Design, and found the pupils engaged in systematic courses of instruction, in drawing, and in its applications to decorative arts, to lithography, wood engraving, painting, wall and surface decoration; also classes for drawing and shading from the round, for painting in distemper and fresco, for photography, and for modelling in clay and taking casts in plaster of paris. I was glad to find that orders had been given to the school for decorating some of the public buildings in Calcutta, and that several of the houses of wealthy natives had already been decorated. The teacher of wood engraving, Mr. Garrick, had been formerly in the Madras School of Arts, and had been tempted away by the offer of a higher salary. Some of the work turned out in this school, reflects great credit on both the teachers and pupils. Attempts should be made to interest the public in what is now being done, and to attract a greater variety of pupils from all classes of the community, and visitors to see what can be done in India.

16.—I have to return sincere thanks to Government for having afforded me the opportunity of visiting so many schools of art and places of interest, and I trust that ere long, some results of a practically useful nature may be apparent

from this tour. Most of the suggestions that I made, have met with a cordial reception, and I trust that the steps that have been taken to extend artistic and industrial education may prove of benefit to India. We must bear in mind, that, in attempting to introduce the fine and industrial arts, we have to deal with a great variety of races, many of whom have attained to as great eminence in manufacturing art as the most civilized nations of Europe; and that we have to look to the education of some, who are proverbially neat-handed, dexterous and delicate in their workmanship, and who have a fine appreciation of the abstract beauties of form, and of the harmonious arrangements of colors. From an acquaintance with the natives of India of twenty-six years' duration, and a close observation of their artistic and manufacturing capabilities, I believe that they can be taught any branch of either the fine or industrial arts, and that from their delicacy of touch and their unwearying patience, they are calculated to excel in drawing, painting, and engraving. They have already made considerable progress in these departments in Southern India, and from observations made in my late visit to the Upper Provinces, I can bear testimony to their dexterity in carving marble or stone, in working metals and modelling figures from nature or in copying from the antique. I have no hesitation in saying that native workmen will copy faithfully any work of art put before them. Their first attempts are necessarily crude, but great dexterity is soon acquired in the use of tools, and refined delicacies of manipulation and even delicacies of drawing, modelling and of expression, are appreciated and successfully imitated. In the fine arts, I believe we have a lever that may be used to raise the education of the natives, and one that, if it be judiciously employed, may do good, especially amongst the poorer classes, who cannot afford to pay for our European education, or for those who do not care to acquire it. At the same time it will be necessary to direct the natives in their selection of art; a great deal of what is cheap, tawdry, and tinselly, is finding its way into this country, and a good deal more of what is low, vulgar, and obscene. If schools of art are to flourish and to be of use in raising the thoughts and aspirations of the natives of India, it is our bounden duty to assist, to direct and to instruct the pupils aright, taking care that the fine arts are not prostituted to degrading purposes, or merely encouraged with the object of pampering vain and showy ostentation.

I have the honor to be, Sir,

Your most obedient servant,

ALEX. HUNTER, M.D.,

Superintendent, School of Industrial Arts.

ADDRESS TO THE STUDENTS

IN THE SCHOOL OF INDUSTRIAL ARTS, SURAT, 15th January 1867.

MY YOUNG FRIENDS,—I have come from Madras to see what you have been doing and to find out if we cannot assist in raising the standard of both the artistic and industrial education. About nine months ago I was asked by the former Secretary of this school to draw up a scheme for its management, and for organizing classes for drawing and carpentry. This I did, and I am glad to see that the suggestions which I offered have been carefully attended to, and carried into practise by the Committee, to the best of their ability.

There are some points connected with the school, on which I wish to say a few words, and I can do so better now after two careful inspections, and after having made enquiries into its management; than I could have done after a mere correspondence with the Secretary. I am glad to find that the drawing lessons that we supplied from the Madras school, as well as those sent from Bombay, have been very carefully copied and made good use of. I have no hesitation in saying that the copies are as good as those that have been made by our own pupils, and that there has been a very conscientious system of diligent teaching. It will now be necessary to procure for the school, different series of more advanced and difficult lessons, and to try to teach the masters and pupils to look a little more at natural objects, and at casts from the antique and from life. I think I cannot do better than describe the methods that we adopted to procure for our pupils, studies from objects in this country with which they would be familiar, for I found that many of the rudimentary lessons that had been supplied to us from the Kensington School of Design, would not be understood by the pupils, as they had not an opportunity of seeing the plants and objects represented, some of them being peculiar to cold climates, I was encouraged to take this step, from a remark that accompanied the lessons sent to us by the Secretary in the Department of Science and Art in London, to the effect, that these rudimentary studies were not so good as the more advanced lessons, and that they were meant to suggest the class of studies that might be selected for study and the styles in which the rudimentary lessons should be prepared. We began by taking careful drawings in mere outline, from the leaves and plants of the country; some in a flat conventional style, to be afterwards applied to surface ornamentation, others in perspective and turned about in different positions, a third series carefully drawn and shaded from living plants growing in flower pots.

Then a more advanced series combining light shade, form, and color, all taken from natural living plants; other series for the students in our industrial classes were taken from nature, first as flat casts in Plaster of Paris, then in fired porcelain clay, the plant being pressed in by an ingenious and quick process, discovered accidentally by my son Richard when he was a child. I will

detail this to you, as I think it will interest you, and the process has been carried to great perfection by Brucciani of London, who has taken fac simile casts of leaves, fruit and parts of plants, as studies for drawing and modelling. One morning Mrs. Hunter and I had been walking in the garden with our children and had gathered a number of pretty leaves and flowers, I gave them to my son with a slate and a slate pencil, and showed him how to draw a few of them, but I gave him also a lump of soft prepared porcelain clay, ready for modelling. I had to go to Hospital to attend to my Medical duties, but on my return, I found the flowers and leaves nearly all beautifully impressed in the clay, by a simple and efficient process that gave an exquisite outline with all the texture and characters of the plant sufficiently for a botanist to identify it. The slate was cleaned, the plant laid on it, and a flat cake of the clay banged down sharply, so as to embed the plant completely. A few of the plants had been torn out of the clay, leaving a most delicate impression of every fine fibre or mark. There were others left embedded in the clay, I got them all fired in a potter's furnace, and I found that this gave us some very pure, simple elementary lessons for drawing, or modelling. We afterwards made great use of this simple discovery to provide rudimentary lessons in relief from a flat surface; within the last 17 years, this process has been greatly improved, the natural curves and forms of leaves, twigs, flowers, fruit and branches have been carefully copied as lessons for schools. I will send you some of these from Madras, as I know that you will be more interested with them from recognizing the plants and knowing the process by which they are made, than if we ordered out more expensive studies from England.

I will now show you some of our more advanced studies that were first drawn by myself from the common wild plants of the hedge rows about Madras, and afterwards engraved on copper, and printed by the teachers, students and workmen in our school. At first I used to make excursions with our students on Saturdays, to take sketches and collect plants, seeds and clays about Madras, but as 60 or 70 students sometimes accompanied us on these excursions, it became a nuisance to the public, as we obstructed the roads and I could do very little in the way of either drawing or teaching with such a crowd about me. Since then I have adopted the plan of taking the sketches from nature by myself and having them afterwards prepared and copied as large black board lessons or engraved and printed as studies for the lads to take to their own homes to draw from at evening hours. The large lessons that I now show you are from some of the magnificent creepers of the Shevaroy and Neilgherries, to which places I generally resort for my month of holidays. I always try to take some of our industrious young men with me as an encouragement and to teach them drawing, painting or photography. Last year we took four young men to Coonoor and Ootacamund, two East Indians and two natives, to assist me in taking

casts of the hands, feet and arms of the Hill tribes and photographs of all the different races. These I now show you and we shall be able to send you copies of them, and of very fine hands and feet from the antique statues in Rome, Paris, and London. At first you must try to acquire the power of drawing clear and correct outlines of these hands and feet. The outline conveys the first idea of form, and it cannot be too exactly and clearly drawn; if it is not correct, all the subsequent labour that you may bestow on your work will be thrown away, as delicate shading will not compensate for bad drawing. After getting one good outline turn, the cast round and draw from it in different positions. Then add shading to your lessons, and try to give the roundness and relief and the relative strength of the shadows cast by the different parts; these shadows are the key to fine drawing, look well at them and let the lights look after themselves. The lessons from which you have been drawing hitherto are elementary, and most of them in outline, though I see that some are shaded and are taken from parts of machinery, plans of buildings and more difficult architectural drawings. The lessons have been very fairly copied, but I see that you will require to be supplied with others in practical geometry and its applications to useful purposes, and with studies of a more advanced nature. I should now like to see more use made of the casts and objects in the school, many of those are very good studies, and you could not have better than some of those richly-carved panels, corbels, and brackets, forming parts of this school-building; they are in a fine bold style and in good taste. I have found in the streets of Surat many carved ornaments on the fronts of buildings that would form excellent studies for a school of arts. I have already purchased a number of these old carvings in teakwood to send to our school, and I hope that your Drawing Master will be able to make drawings or to get photographs from others. Surat is one of the most picturesque and quaintest old cities that I have seen in India, and it bears marks of having once been a perfect city of wooden palaces, for large sums must have been expended on the carved decorations of the houses. I should very much like to see good photographs taken of some of the streets and old houses in Surat, they are in very good taste, and if we got views of them, we could show you how to make use of them for teaching drawing, painting, engraving or modelling. I think I cannot do better now than show you some sketches that I have just taken from Nature since I left Madras, and a few of those taken about a year ago on the Neilgherries, and which have been engraved by our teachers as drawing lessons.

In these you will see that we select first as studies objects that possess some beauty of form. The outline is at first as it were abstracted, and the parts drawn very carefully in different positions and views, then a combination is made of all the parts in their relation to each other and in their proportions. I think it will interest you to know that most of these drawing lessons have

*Sketches of
old buildings
in Surat*

map of Surat

been engraved by your own countrymen, but they have been passed through four or five hands before we were satisfied with them. I took most of the sketches from nature, so they passed first through my mind and were drawn on a large black board 12 feet \times 8, they were then reduced and re-arranged so as to suit the size or form of the copper-plate, then traced on waxed paper, transferred, etched, engraved and printed. I now show you some beautiful sketches of scenery on the Neilgherries by Miss Gell, sister of our excellent Bishop and by Major Sankey, Chief Engineer, Mysore. These have been kindly lent for the Jubbulpore and Agra Exhibitions; they are in a fine light bold style of art and give admirable ideas of the Hill scenery of Southern India.

Before leaving, I have a few words to say to the pupils in the industrial department. You must pay more attention to the geometry, and joinery of your work before ornamenting or carving it. This is the chief defect in many of our Indian manufactures. It can easily be remedied if you pay attention to the accurate drawing and fitting of the parts; remember, if these are neglected, your work will be rickety and easily broken. Many of the richly-carved chairs and sofas of Bombay have this serious defect, and it is sometimes dangerous to sit down upon them. Mr. Deschamps, one of our best makers of cabinet work and furniture in Madras, detected this fault, and set about remedying it in the proper way, namely, by insisting that the practical geometry and joinery should be sound, correct and strong before the carving is commenced. The consequence is, that he has got up a name not only in India, but in France and England for his work, which is about the best and most elegant furniture that is made in India. I must now conclude by wishing you and the Committee every success in your future efforts. I have recommended an increase of salary to the masters for the diligent and painstaking way in which they have discharged their duties.

MADRAS, 26th April 1866.

From

ALEXANDER HUNTER, Esq., M.D., F.R.C.S.E.,

Superintendent, School of Industrial Arts,

Madras.

To

W. ASHTON SHEPHERD, Esq., M.D.,

Civil Surgeon, Surat,

Hony. Secretary, Cursetjee Fondonjee

Paruch School of Art and Industry, Surat.

SIR,—I received and read with much pleasure the letter and interesting Minute regarding the school of art and industry at Surat, which you kindly sent me, along with a Minute on the same subject by A. Grant, Esq., Director of Public Instruction.

2. I shall be most happy to render such assistance as we can, and to give advice that I trust may prove of use in remodelling the school. I have had a good deal of experience in teachers of different kinds—European, East Indian, and Native,—and this is the greatest difficulty you will have to contend with, as the chief success depends upon the teachers, the interest that they take in their pupils, and the facilities they have for imparting instruction. I am sorry to say we shall not be able to provide you with a Head Master from our school, as we have had so many teachers to supply to other schools, that at present we cannot spare one qualified for such a responsible situation. I would recommend you to apply to the Department of Science and Art in London for a properly-qualified teacher.

3. In the meantime I can offer some suggestions to the Committee of the C. F. P. School of Art and Industry, that I trust may prove of use. The systems of instruction followed in the schools of art in England and Scotland, many of which Institutions I carefully inspected in 1859, though excellent both in theory and practice, are not quite suited to the requirements of our schools in India. The geometry, perspective, machine and plan drawing, projection of shadows and architectural drawing, which are taught in England, are not so much required or sought after in India, there being little or no machinery to construct, few public or other buildings to erect, and hardly any openings of a remunerative kind for pupils highly educated in these branches.

4. The departments which appear to offer most prospect of remunerative employ for qualified pupils in India, are designing for ornamental manufactures, as carving in wood, ivory and stone, engraving on copper and wood, chasing and inlaying in metals, modelling in wax or clay, casting in plaster, working in chunam, embroidery in lace, gold and silver thread, net and fancy works. Casting in brass, bronze, silver or gold, chasing, electro-plating and filagree works, inlaying wood, ivory, horn, &c., wall decoration and making garden vases, ornaments or figures in terracotta or stone, and taking casts from many of the above in plaster of paris.

5. We have found, by experience, that instruction in drawing alone does not offer sufficient inducement to pupils to turn their attention to it merely as a recreation or as a part of their education. They require to see the prospects that it holds out of gaining for them a livelihood. On this account we have always given a practical direction to the instructions in drawing, and have taught at the same time its application to wood or copper plate engraving, etching, lithography, carving, modelling or casting, and the instructions in all these departments have been carried on simultaneously.

6. A good deal of the work in the industrial department of our school is prepared in the artistic ; for instance, the drawings of all important orders that have to be executed, are first made on the large black board to a scale ; a work-

ing drawing to a similar or a smaller scale is then prepared on paper, and if sufficiently important to form a practical lesson in drawing, carpentry, modelling or casting, it is engraved for permanent use in our own or other schools. In this way progressive improvement has been made in all the branches of instruction. We try to make all the lessons on the black-boards, of which we have two in daily use, sufficiently careful to form studies that are worthy of being preserved. They frequently pass through five or six of the teachers' hands before being perfected. At first I used to draw and correct them all myself, but we have now from eight to ten teachers qualified to assist in this work; one black-board is 11 feet by 8, the other for beginners to copy from is $4\frac{1}{2}$ feet square.

7. I look upon the black-board lessons with explanatory lectures, demonstrations and drawing from living growing plants or actual objects, as the most improving part of the instructions. The mere copying of the engraved lessons afterwards is much easier. We give these engraved lessons to the more advanced pupils (who are studying as drawing masters) to take home, and they draw diligently from them in the evenings; after copying the lessons, they return the originals and get others in exchange.

8. As regards the selection of studies, we find that it is necessary to have considerable variety, as we have usually from 300 to 400 lads of different ages and capacities under instruction. We commence with simple outline drawing of objects, leaves, plants, flowers; then a course of simple practical geometry with its application to carpentry, joinery, building and decoration, with separate instructions for the more advanced pupils in shading, coloring, tinting, botanical drawing, architectural and plan drawing.

9. In selecting a particular style of drawing for encouragement, it would be well to bear in mind the sound practical suggestion offered by Mr. Grant, the Director of Public Instruction, in para. 7 of his letter (here quoted).

"It appears to me that it would be quite sufficient for the present if you were to confine yourselves to the development of the drawing class, and were to endeavour to turn out annually a number of thoroughly trained draughtsmen. In the course of a year or two pupils of Mr. Higgins, (the Instructor in metal work at Bombay) and of Mr. Griffiths, (the Instructor in decoration) may be obtainable as teachers, and then your carpenter's and metal worker's classes might be re-established on a new footing, but at present I should strongly advocate their being abandoned."

In the meantime as carpenter's and black-smith's work have been introduced, I would strongly recommend that they be continued, as they are very useful and remunerative branches of industry, both of which can easily be improved. Should the Committee of your school wish it, we could easily furnish you with sets of progressive lessons in carpentry and joinery, with

lessons in practical geometry applicable to these branches of industry. We could also furnish you with sets of the best descriptions of tools for carving in wood, ivory, or sandalwood, modelling, engraving, punching and working in metals. We have gone to some expense and trouble in procuring all the best forms of tools used in art-manufacture, and we find that the natives can soon be taught to work with good tools, and that they appreciate and take care of them.

10. I concur entirely in the suggestions offered by Mr. A. Grant, in paras. 10 to 14 of his letter, but I would suggest that fees should be charged for instruction, varying from four annas to eight annas for the rudimentary classes, and that rewards be offered for competition every six months. A class should be formed of the more advanced pupils who have gained prizes, and a few of them might be selected as paid pupil teachers, and the most deserving and attentive might be selected for stipendiary scholarships to be held for one or two years.

11. The industrial department of our school partakes somewhat of the character of a charitable school for instructing the poor in useful trades, though we now aim much higher than when we started, and we find that the pupils who enter it from the artistic department soon outstrip the others, from their knowledge of English, their facility of drawing or modelling, and their acquaintance with geometry. Those young men who have studied in both departments and have shown diligence, usually obtain remunerative employ readily, some as engravers or chasers in metal, others as fitters or filers, blacksmiths, hammer men, carpenters, wood engravers, carvers, potters or brick and tile makers, a few as photographers, and a few as artists. A good many are provided with situations as teachers in other schools.

12. As it is impossible for us to supply teachers from our school at present without seriously impairing its efficiency, I would recommend the Committee to apply for pupil teachers from the Sir Jamsetjee Jeejeebhoy School of Arts in Bombay. Let the first instructions be in simple outline drawing and practical geometry, then let the master commence to draw lessons from plants and objects that can be put before the pupils, combining geometry and the rudiments of ornament with these lessons, and if they could be etched or engraved on copper for subsequent use in the school, it would greatly interest both the masters and their pupils to see their own drawings gradually introduced as lessons. I send you a number of copper-plate etchings and engravings, all of which have thus been produced in our school, and should you wish it, I could send you further supplies of lessons and progressive series of lessons in wood engraving, landscapes, and figure sketching and photography, but we should expect moderate payment for these lessons, to cover our expense for printing and engraving them. The salaries offered for pupil teachers need not exceed Rupees 40 or 50 per month for the best, and from that sum down

to Rupees 8 or 10, the younger lads should always have the prospect of rising to the higher appointments.

13. I would strongly recommend the appointment of a paid Secretary as in the Calcutta School of Arts, in addition to the teachers, and his duty should be to try to interest the European and Native communities and the friends and relations of the pupils in the school, by inviting their attendance to see the progress of the pupils, to award prizes, to keep accounts and to get orders for work to be executed. As soon as possible, a practical direction should be given to the instructions, drawing, and the fine arts are not remunerative at first, but manufacturing or industrial arts soon become so, if carefully taught.

14. The suggestions offered by Mr. Redgrave for putting our pupils through defined courses of instruction in linear geometry, free hand outline drawing, shading and drawing from actual objects have proved of great benefit, and have tended materially to assist us in preparing improved lessons for our own and for other schools. Twenty-two schools of art or industrial art have been established in different parts of India and Ceylon; of these, eighteen are still in existence, besides our own, and most of them look to us for advice, assistance, lessons, and tools. As yet we have only been able to supply teachers to ten of these schools, but in time we hope to furnish more.

15. The number of trades and occupations carried on in Surat, shows that it is a flourishing town, and that there ought to be sufficient encouragement for a school of arts. It might be well in commencing the school, to try to induce the native workmen to compete for prizes for patterns, and then to encourage the drawing of patterns suited to their manufactures. Attempts of this kind made in Madras have led to beneficial results for carving in sandalwood, ivory and horn, for the manufacture of picture frames and works in silver and metals, also to a moderate extent in weaving. Many of the patterns drawn and designed in the school have been widely distributed over India, and have been executed at up-country stations.

16. The list of questions submitted to the Committee is of such a thoroughly searching nature, that it has evidently been prepared with the view of leaving nothing of importance connected with schools of art uninvestigated. Most of the questions will have to be subsequently decided by the Committee, when the school has been re-organized, but there are three requiring, I think, special attention, namely, Query 5, "What shall be the monthly or annual sum expended on machinery and tools for the artistic department? what for the industrial?" I think it will be necessary to have a special grant for these of not less probably than Rupees 2,000 at starting, to supply tools, appliances, &c. for instruction. After the school is fairly established, a certain portion of the earnings might be set aside for purchase of tools, drawing materials, &c. Query 6, "What shall be the monthly sum for raw materials in the fine arts

department? what for the industrial? shall Government be asked to give any from the Dock-yards?"

Application might be made for stationery, fuel and timber from the Dock-yards. Government and the public might also be requested to give orders for work for public purposes to be executed in the school, when such work can be made of good quality. Query 7, "What of the requisite machinery or tools shall be at once set up?" Two sets of carpenters and two of blacksmith's tools, two pairs of bellows, a good turning lathe and some anvils and bench vices might be at once applied for from the Dock-yards or Government Stores.

Trusting that these suggestions may prove of use, and wishing you and the Committee every success in your efforts to establish a school of arts, to which I shall always be happy to render assistance.

I have the honor to be, Sir,

Your most obedient servant,

(Signed) ALEX. HUNTER, M.D.,
Superintendent, School of Industrial Arts.

*Meeting of Committee of School of Arts and Industry, Surat,
Tuesday, January 15th, 1867.*

The following gentlemen were present :—

C. G. Kemball, Esq., President.

H. T. Whyte, Esq., Dr. Manekjee Cursetjee,

Keykhursoo Hormusjee, Esq.,

Moturam Dulputram, Esq.,

} Members.

Dr. Hunter, School of Industrial Arts, Madras, and Mr. Curtis, Educational Inspector, Northern District, attended the Meeting.

Proposed by Dr. Hunter :—

1. That with reference to Mr. Howard's report (the Educational Inspector) the Government of Bombay should be requested to assist and take interest in this Institution.

2. That a paid Secretary, or a duly qualified Master from Bombay should be appointed to the Institution.

3. That two pupils should be sent, at the expense of this Institution, to the Sir Jamsetjee Jejeebhoy School of Art and Industry, Bombay, to learn drawing.

4. That a letter should be written to G. Griffiths, Esq., teacher of drawing in the arts school of Bombay, with reference to a proposition contained in paragraph 3; he should also be requested to provide this Institution with a good Master on a salary of about Rupees 120 per mensem.

5. That the salaries of the teachers of drawing and carpentry, Jamasjee and Eduljee, should be raised respectively to 30 Rupees per mensem, with a promise of further increase subsequently, should they continue to improve; that the vernacular School master's salary should not now be increased as he

has shown great carelessness in teaching, but that should he subsequently become more diligent, his pay should then be increased. The salaries of all such persons as have been increased to be liable to be reduced, should their conduct appear deserving of the same.

6. Means should be taken to discover what different kinds of wood can be obtained in the neighbourhood for purposes of carving, &c. Babul and Neem are very useful woods for this object, they should be well seasoned. (Dr. Hunter kindly promised to supply this Institution with samples of various kinds of woods). Dr. Hunter also promised to send some tools for this Institution.

7. These pupils, who are studying the higher branches of drawing, should be required to pay a fee when a good Master is obtained.

8. These pupils, who are learning carpentry, should receive no payments during the first month after their admission.

9. The Executive Engineer, Lieutenant Mant, should be requested to become an ex-officio member of this Committee.

10. Mr. Wittul Wassoodee, an Assistant to Mr. Mant, should also be requested to become a member of this Committee.

Resolved unanimously, that the above propositions be adopted.

(Signed) GEORGE AYERST,

*Honorary Secretary to the School of
Arts and Industry.*

MY DEAR SIR BARTLE FRERE,—I ought to have written sooner to thank your Excellency for the kind attentions received when I was in the Bombay Presidency, but I have been very busy till now. I received a most cordial welcome from the teachers in the Bombay School of Arts, and I got some excellent suggestions from them, regarding some points on which I required information. I gave them the results of my experience in Madras, and I have commenced a correspondence with Mr. Griffiths, which I hope will be continued from time to time. At your suggestion, Sir Alexander Grant wrote to Mr. Curtis, to intimate that I intended visiting the School of Arts at Surat. I did so, and found the school in a very healthy, promising condition, with about 30 pupils, being carefully taught drawing by a native teacher from the Bombay School, and 25 under instruction in carpentry. The Committee of the school had carried out the suggestions which I offered them, some nine months previously, when Mr. Howard was at Surat, and the results were beginning to be apparent. A native carpenter of Surat had been selected as a teacher, and both he and the drawing master were doing their duty, conscientiously I thought, and to the best of their ability. I gave the pupils an address on Art, and at a Meeting of the Committee, I pointed out the best modes of improving the School, and raising the standard of instruction. I think Mr.

Griffiths will be able to assist the artistic department most efficiently from the Bombay School, and we can send them engraved lessons in carpentry, joinery, and carving. This, I think, is a branch of industry that requires improvement in several of the large towns of the Bombay Presidency; the carving is often very good, and parts of it tasteful, but like several of the art manufactures of India, modern taste runs riot, and is often lost amidst a profusion of elaborate details, while the geometry, practical mechanics, and basis, upon which the decorations are applied are often defective. As instances, the carved chairs of Bombay are often very rickety and dangerous to sit upon, and the ivory and sandalwood boxes often fall to pieces by being handled for a few months. At the suggestion of your Excellency, I called on Pudomjee Pestonjee Khan Bahadoor at Poona, and was very cordially received. His sons have made great progress in photography. They took my likeness remarkably well. I was very much pleased with the design for the new Government offices at Ganesh Khind, and should like very much to have copies of the two coloured drawings of the outside of the building, to show in our school in Madras what can be done in this country. I have written to Sir Alexander Grant regarding this, and photographs from these drawings have been supplied. Dr. Beattie deserves great credit for the successful introduction of tent-making as an improving branch of industry for prisoners in the Poonah jail. I have just been over the tent manufactory in the Jubbulpore Jail, which is on a gigantic scale, and very well conducted. It is pleasing to see so many of the Thugs and Dacoits of the district and their children being trained to honest industry, and contented and happy. I was sorry that I did not see Mr. Temple at Nagpore, but I examined carefully the raw products in the Museum and several of the branches of art industry of these Provinces, and left written suggestions with Mr. Bernard and Mr. Carnac, regarding the manufactures of the district that are worthy of being kept up. The modern stone carvings of Nagpore are the finest and sharpest I have yet seen, and surpass those of Bombay; and some of the manufactures in brass, bell metal and copper of the Central Provinces, are very elegant, both in shape and in decoration. I think we can assist in improving the pottery, and bricks, and the carpentry. I start for Agra on Monday and have eight schools of art to visit in Bengal.

Will you remember me kindly to Lady Frere and the young ladies? and

Believe me, yours sincerely,

(Signed) ALEX. HUNTER.

From

ALEXANDER HUNTER, ESQ., M.D.

To

C. BERNARD, ESQ.

*Secretary to the Chief Commissioner,
Central Provinces.*

SIR,—Having been nominated by the Madras Government Agent for the exhibitions at Jubbulpore, Agra and Paris, and appointed to inspect and report upon a number of schools of art and industry that have been, or are about to be established in different parts of the three Presidencies, I have thought it my duty to bring to your notice, for the information of Richard Temple, Esq., Chief Commissioner of the Central Provinces, some points of importance connected with the state of the industry of Nagpore, and the best means for utilizing the raw products of the vicinity.

2. I have visited the Nagpore Museum three times, and have gone carefully over its mineral contents, and have pointed out to Mr. Bernard some of the most important minerals which might hereafter be utilized. I have also had conversations with him, Colonel Maxwell, Chief Engineer, and H. Rivett Carnac, Esq., on the subject of the industrial arts of these Provinces, and the supplies of raw materials for their subsequent encouragement. I have also inspected some of the principal manufactures of Nagpore, to be found in the museum and in the bazaars of the native city, in the remains of the old palace and the principal buildings about Seetabuldee and Nagpore. I have also made some cursory examinations of the clays, rocks and strata within a few miles of the cantonment, with the view of ascertaining whether improvements might not be made in the manufacture of bricks, tiles for roofing and paving, and in the pottery of Nagpore.

3. There are some branches of industrial art which have already been brought to considerable perfection in these Provinces, and which are deserving of further encouragement, as working in stone for building purposes, and carvings and decorations for gardens and public buildings. There are few places in India where this art has been brought to such perfection, and where it is done so cheaply and with such taste, elegance, precision of drawing and finish. When the Railway communication with Bombay, Poona, Surat, Madras and Calcutta are completed, this branch of industry might easily be developed into a flourishing and remunerative trade. Many of the designs in the old palace at the Göl bungalow, and in the various gardens about the city and cantonment, are worthy of being preserved and copied as studies in a highly-refined state of art, resembling the Renaissance or best periods of the Etruscan, Mid-aval, and Grecian styles. Some of the modern works in stone on the pagodas and public buildings are equal in execution to the older specimens, but inferior in taste, and they are, in general, over-crowded with ornament. It is of

the utmost importance, I conceive, that the finest of these stone-carvings should be preserved, and careful copies made [for future use in schools of art, as this might lead to the revival of a purer and better taste in other parts of India, where the general tendency is to the deterioration or total neglect of decorations in stone, or to the substitution of more flimsy and less durable and tasteful decorations in chunam. The Central Provinces possess such a fine variety of good building stones, steatites, and sand stones fit for decorative architecture, that it is of great importance that this branch of industrial art should be preserved and encouraged as widely and liberally as possible.

4. Wood carving is another branch of industry that appears to have been brought to considerable perfection in Nagpore, but to be now on the decline, partly from the want of teakwood and from the deficiency of encouragement. Some of the pillars, door-ways and carved ornaments in the houses of the old city are in very good taste, and it is desirable that a collection of the best specimens of these should be made to illustrate the old Mahratta style of carving in wood.

5. The carpentry, joinery and cabinet work in use in these Provinces are of an inferior description, and there is great room for improvement in these departments. To effect this, I consider that it will be necessary to teach the carpenters the importance of practical geometry, and its applications to joinery, as in the construction of door and window frames, joints splices, ties for beams and rafters, the processes of dove-tailing, rabbiting, and, sawing of timber. This appears to me a point of considerable importance, as it concerns the durability, elegance, comfort and safety of both the public and private dwellings in these territories. To carry out improvements in this direction, I think it would be desirable to appoint an Officer either in the Engineers or in the Department Public Works, whose duty it should be to superintend works of this kind, both while under construction and when applied practically to building or other purposes. Also to select and make use of several of the timber trees and woods of the jungles, which, from improper seasoning, neglect, or deficient acquaintance with their working qualities, are being used for coarse purposes, or as fuel, when they might be much more profitably employed in house building, carpentry, joinery or cabinet work; teakwood appears to be almost the only kind of timber extensively employed in these territories, and the consequence is, that the price has gone up to such a point as materially to increase the cost of all public buildings or works on which it is employed. To obviate this serious evil, steps should be taken, through the Forest Department, to propagate, collect and attend to the proper seasoning, sawing, and treatment of other kinds of timber, to be tried and reported upon in a special workshop for the purpose. Experiments might also be tried in the Arsenal at Nagpore, with the view of testing the applicability of the woods procurable in the jungles, forests, or gardens of these territories

to various useful and ornamental purposes. For further information on this head, see the reports of the committees and juries of the exhibitions of arts, manufactures and raw produce held in Madras in 1855 and 1857 in the classes of woods and timbers, carpentry, joinery, and upholstery. If required, lessons in practical geometry and illustrative specimens of joinery, carpenters and upholsterer's work, with the best descriptions of tools, could be procured from the School of Industrial Arts in Madras.

6. A branch of industry that appears to have attained to considerable perfection, is the manufacture of brass and copper vessels. These seem to be made at Mundla, Bhundarra, Nagpore, Kelode and Lodeckhera, but only in the last-named town is the chasing and ornamentation of the vessels extensively carried on; with very little trouble and expense, this branch of art might be carried to perfection and made remunerative. For this purpose I would recommend that samples of some of the elegant forms of brass and copper vessels made in Trichinopoly, Madura, Salem and Hyderabad, be procured as furnishing good models. The Lodikhera brass vessels resemble, in pattern, some of those of Beder, near Hyderabad, but the manufacture is quite different, being mere engraving or punching of the surface, while the Biddery wares are made of a composite black metal with silver inlaid. If desired, photographs and engravings of finer patterns, a few well selected specimens of manufactures in brass and copper, with better tools for finishing the work, could be supplied from Madras.

7. The manufactures of bricks, roofing and paving tiles and pottery, seem to be in a very backward state in Nagpore, partly owing to the abundance of good stone and lime for building, and the scarcity of fuel for firing such manufactures. In searching through the minerals in the Museum, and in driving and walking about the hills around Seetabuldee and Nagpore, I found that there are plenty of materials suited for the manufacture of bricks, tiles, terracottas and stoneware. But there appears to be a scarcity of fuel and a scanty demand for articles of this description. In some of the nullahs about Nagpore, fine beds of tough strong clay have been washed out of the decaying granites and schists. In many places the natives seem to have taken advantage of these deposits for making bricks and tiles. In other localities there are beds of white kaolin, yellow buff and red ochres, which have been dug for colouring and white-washing the walls of the houses, but these have not yet been used to any great extent. Here and there, amongst the cotton soil, there are also beds of clay, but so impregnated with small lumps of kunkur or lime and gravel as to be nearly unfit for making bricks or tiles. They are employed, however, by the natives for these purposes, but the bricks, tiles, and pottery of Nagpore are of a wretchedly bad quality. They might be greatly improved if there was any demand for them, but the native methods of manufacture and of firing must be abandoned, and the more scientific European or Chinese methods introduced. For instance,

the materials which are similar to those found in Europe and China, and which are largely prepared in these countries, would require to be washed or blunged in large pools and drained off into others to allow the lime and gravel and sand to deposit. This is a thing that is never thought of by the native potters in this part of India, though they have learned the importance of it at Arcot, Vellore, Madura and other places in the Madras Presidency. Then for the finer description of building materials, very fine sand must be washed and sifted into the clays or burnt quartz, flint, felspar, or zeolites must be crushed and ground with the materials, and when the articles are made, they must be fired in furnaces and not in the slight superficial way that is generally resorted to by the natives. An East Indian teacher, who has been trained to the manufacture of bricks, tiles, terracottas and pottery, could be sent from the Madras School of Arts, on a salary of Rupees 40 per month, and should it be desired, other assistance could be rendered if it is in contemplation to improve the arts and manufactures of these provinces, or to preserve and encourage those that have already been brought to some perfection. It is our duty to assist and to educate the natives of this country to earn a livelihood by their own exertions, and we have another duty to God who sent us to this country to shew the natives how best to utilize the gifts of His providence and bounty, which are perhaps distributed as liberally and abundantly over India as most other countries. If I can be of service in assisting you or the Chief Commissioner in improving or in giving extension or publicity to the manufactures or arts that have been or are practised in these territories, I shall be most happy to do so. At the same time, I believe it will be expected by the Madras Government that any aid and advice that may be offered will be reciprocated from the Central Provinces, if it is in your power or in that of the Chief Commissioner to do so.

ALEX. HUNTER, M.D., F.R.C.S.E.,
Superintendent, School of Industrial Arts, Madras.

JUEBULPORE, 1st February 1867.

MY DEAR DOCTOR BEATTIE,—I was very sorry that I had not time to talk more to you on the subject of art industry, and particularly so that I did not visit the Jail at Poonah. I heard a good deal about it, however, from parties who knew its working, and I had so much business to get through the day that I called upon you, that I did not get home till dinner time. I congratulate you most sincerely on having successfully introduced into the jail, an occupation for the prisoners that proves remunerative, and that gives them employment, by which they may afterwards learn to earn a livelihood. I think that it is likely to do good, and though it does not come within the sphere of my present duties, I now upbraid myself for having left Poonah without visiting the jail. I saw Pudomjee Pestonjee and his sons, and they asked me to sit for

my likeness, which I did. I had also a conversation with them on the subject of establishing a school of industrial arts, but I saw that neither he nor his sons were at all inclined that way, so we must look to you still to help us in another way, that may benefit art, and do good to the carvers of Poonah. In the first place I wish you would order a screen similar to the one that I saw in your house, to be carved for our school of arts, and if the men require an advance, I will try to send it to them from Agra, if you let me know how much they require. I had not money enough with me at Poonah to leave and to carry me on to Bengal, but I can probably send you some from Agra. Another thing I wish you to do, is to try to get me outline drawings of other screens, as there are plenty people in Madras who would be inclined to purchase work of this kind for their houses. I think Lord Napier, our Governor, would, as he is fond of native work, and ordered me to look out for it. Another thing I wish to know is, if the men would undertake to make perforated picture frames and other work if we sent the patterns, for we have plenty of them suited for carving in black wood; please address to me at the Agra Post Office up to the 13th February, when I expect to be leaving for Calcutta. Wishing you every success in your praiseworthy efforts.

Believe me, yours sincerely,

ALEX. HUNTER.

From

ALEXANDER HUNTER, Esq., M.D., F.R.C.S.E., Surgeon-Major,
Superintendent, School of Industrial Arts,

To

HIS HIGHNESS MAHARAJAH SIR RAMSING, BAHADOOR, G.C.S.I.,
Jeypore.

I have the honour, with reference to the letter from your Highness of the 8th October, to Dr. C. S. Valentine F.R.C.S.E., and my reply of the 15th November 1866, on the subject of establishing a school of industrial arts at Jeypore, to state that I was deputed by His Excellency Lord Napier, and the Madras Government, to visit the exhibitions of arts, manufactures, and raw products at Jubbulpore and Agra, and to visit a number of schools of art in the Bombay Presidency, the Central Provinces, and Bengal, with the view of ascertaining the present condition of the arts and manufactures of India, and assisting to improve or to give publicity to them by various means.

2. For the last few days I have been busy with Dr. Valentine, inspecting the public institutions of Jeypore, and the old palace and city of Amber, with the view of ascertaining what are, or have been, the principal arts, manufactures and raw products of these territories; and it has afforded me much pleasure to find that a great deal has been done for the advancement of science,

learning, arts and manufactures, while the number of public institutions of a benevolent or useful nature that have lately been established in the city of Jeypore, reflect the highest credit, and evince the public spirit and philanthropy of your Highness, and your wisdom in having selected efficient agents to assist in carrying out these various undertakings.

3. I have found Jeypore to be a perfect city of palaces, with wide, airy, clean streets, lofty houses built of stone and marble, broad pavements, and an amount of activity, bustle and energy, amongst the inhabitants, which speak of prosperity, activity of trade, and of a wise and liberal mode of government. I have also inspected the Medical College, the Medical Hall, and Dispensary for Medicines, the English and Sanscrit College and the Jail, and am glad to find that your Highness has sanctioned the establishment of a school of Industrial Arts, the noble building for which is not far from completion, and is admirably planned and adapted for the purpose. That a large sum of money has been devoted to endow this Institution, and Rupees 200,000 set aside for the formation of a public library and philosophical institute ; that a school of Midwifery has been established and some other public institutions of a benevolent nature, and that it is in contemplation to establish dispensaries throughout the territories, and to train young men to be sent out as Native Medical and Surgical practitioners ; and what gave me especial satisfaction is to find that your Highness is interested in female education, and that a school has been opened in the city for the instruction and employment of females.

4. I have made particular enquiries regarding the arts and manufactures of Jeypore, and have found that carving in marble and stone have been brought to great perfection for architectural purposes, and that there is considerable advancement in the working of white and black fine marbles, for table ornaments, figures, vases, and animals. That the art of dyeing and calico-printing are successfully practised, but the designs are susceptible of improvement, and of greater variety ; that jewellery, and setting of precious stones, are fair, and that there is considerable dexterity evinced in the working of silver, copper, and brass. The style of painting and decorating the houses is very good, and in many instances there is evidence of refined taste and harmony of arrangement in colours. The common pottery or earthenware is of very fair quality, and is decorated with bands and ornaments of a golden yellow colour, on a red ground, with white lines interspersed. There is also a description of coarse white glazed stoneware with blue patterns, which shows that the materials are at hand for making real porcelain and stoneware of the best description.

5. I have searched some of the Hills in the Jeypore territories in company with Dr. Valentine, and have discovered that they yield fine pure white quartz, mica and soapstone in large quantities ; and it has been brought to my notice by Major Beynan, Political Agent, that there are rich ores of copper,

lead, silver and iron in these territories. There are also to be found in the bazaars white porcelain clay, saltpetre, crude soda and brilliant coloured earths in great abundance, fine descriptions of white, black, grey, and yellow granular marble, fit for statuary purposes, and which abound at Mackrana and Dagouta; oils of very fine quality, and very good soap are made in these territories, saltpetre and alkalies are also abundant. I have also pointed out to Dr. Valentine that there are a number of plants yielding brilliant dyes, and others producing valuable fibres for weaving cordage. The former appear to be turned to good account, but some of the latter are totally neglected.

I have also detected, in the walls of the palace and in the old palace at Amber, enamelled stoneware tiles, glazed and coloured with blue, green, and yellow patterns, and decorated with lines, flowers, ornaments, and Indian deities, made of both red and white stoneware, proving that the arts of pottery and house decoration were once carried to great perfection.

6. Taking into consideration the abundance of the raw materials for artistic and other manufactures, the general aptitude and the desire evinced by the natives of India for instruction, and the rapid progress made by them in artistic designing, drawing, painting and modelling when under proper instruction, I would suggest that steps be immediately taken for organizing an efficient school of industrial arts, and for carrying out some of the liberal schemes that have been devised by your Highness for improving the condition of all classes of the community, and enabling the poor, as well as the rich, to enjoy the blessings that arise from an advanced state of education and its attendant civilization.

7. The kinds of assistance that can be rendered from the school of arts in Madras are, supplying teachers of pottery, modelling and taking casts, drawing, painting, engraving on wood and copper, carpenter's, blacksmith's works, fitting, filing and making tools and agricultural implements. We can also supply from the school of arts, designs and drawing lessons in wood and copper plate engraving, botanical drawings, and progressive studies of various kinds with models, statuettes, busts, garden vases, terracotta ornaments, moulds in plaster, tools for carpentry, carving, modelling, stone-cutting, dye-sinking, chasing and punching in metals. The patterns for these tools having been obtained from the workshops in London, Edinburgh, Paris, and Rome.

8. I would take the liberty of recommending to your Highness that the Institution be placed under the charge of Dr. Valentine, who, from his theoretical and practical knowledge of the chemistry of arts and manufactures, and from his acquaintance with botany, natural history, and anatomy, is qualified to guide, direct and superintend the various processes and works carried on in the Institution, and in order that the students may become thoroughly acquainted with the theoretical as well as the scientific principles upon which the arts and manufactures are based, I would strongly recommend that Dr. Valentine should

deliver a course of lectures on Chemistry as applied to the arts and manufactures of pottery, glass-blowing and dyeing, calico-printing, and on botany, showing the uses of the various plants, roots, flowers, and fruits of these territories ; and their applicability to drawing, designing or modelling for manufactures. In these departments, we should be able to assist from the Madras school, in engraving and modelling illustrations for the lectures. I would also recommend that in the course of a year or so, when the Institution has been fairly established, Dr. Valentine be allowed to visit the schools of art established in the Bengal and Madras Presidencies, with the view of gaining information regarding their working and the places for procuring studies of the best description for the museum and lecture rooms. I consider that it would be necessary to set aside the sum of Rs. 10,000 for the purchase of studies, models, casts and tools for the school, and as the students advance towards the higher branches of art, further sums would occasionally be required to purchase good lessons.

9. In this way, fields might be opened up for the sale of articles manufactured in the Jeypore school of arts, as well as for the beautiful white and coloured statuary and ornamental marbles of these territories ; and Dr. Valentine would thus be afforded an opportunity of bringing the school to the notice of the chief authorities in India, as well as the general public.

10. When the school is opened, every facility should be afforded for artists and workmen of every description visiting the Institution and copying from the pictures, models, casts or machinery, with this provision, that nothing is to be taken out of the school, and that if any article is broken or destroyed, it must be paid for.

The museum, lecture room, and workshops should be opened certain hours daily for the free admission of the public.

Should any further advice or assistance be required in organizing an efficient school of industrial arts, I shall be most happy to render gratuitous assistance, trusting that in return some aid may be given to the school of arts in Madras, as a public acknowledgement to the Madras Government, that artistic and industrial education are being appreciated in Northern India.

By these means, accompanied by the blessing of God, your Highness will confer a boon, the benefits of which will not be confined to Jeypore or Rajpootana, but will spread widely over India. Jeypore has been long famous as the city of the warrior and philosopher Jey Singh, but I am sincere when I say that, under the rule of your Highness, Jeypore will enter upon a new and brighter path.

Wishing your Highness long life, health and strength to carry on these most important works,

I have the honor to be,

Your Highness' most obedient servant,

JEYPORE, 20th February 1867.

A. HUNTER, M.D.

CALCUTTA, 4th March 1867.

MY DEAR MAJOR BEYNAN,—Will you do me the favour to return my most cordial thanks to His Highness the Maharajah for all his kind and considerate attentions during my visit to Jeypore, by placing an elephant, horses and carriages at our disposal. Dr. Valentine and I were enabled to accomplish within eight days, duties that would otherwise have occupied a much longer period.

2. Some of the minerals which we discovered in the district are of considerable importance in an economic and industrial point of view, and others which you brought to my notice ought to be further investigated, as the ores of lead and silver, copper, manganese and sulphuret of iron. From the variety of minerals which we found in some localities, I am inclined to think that the territories of the Maharajah are very productive, and that His Highness has acted wisely in applying for a thorough geological survey of Jeypore; with the view of facilitating this and saving the time of the officers of the Geological Department. I would beg to suggest that it would be well to adopt a plan which I have repeatedly tried in Southern India in searching for minerals, namely, sending out an intelligent Peon (or a mounted Sowar would be better) with a few coolies, provided with a cart, hammers, crowbars, pickaxes and baskets, and let them go over from half a mile to a mile of country every day, taking care to collect every kind of stone, clay or soil met with, particularly about the base of the hills; a number of cloth bags should be provided for the clays and soils, and the collections of each day should be dated and the locality marked. An active Sowar with six coolies might, in this way, collect a good deal, and the coolies should be rewarded if they find anything of importance and paid in proportion to their intelligence or activity. Dr. Valentine would be able to name many of the minerals, and if in doubts about any, samples might be sent to me numbered, keeping a similar sample with the same number, and I could examine or test them, and report upon their uses.

3. I had occasion to put to practical test on the 16th February, an observation made by Werner, and afterwards corroborated mineralogically and geologically by Sir Roderick Murchison, namely, that wherever large veins of quartz come in contact with uplifted strata of sandstone, mica schist and slate, you are sure to find metals and other minerals of value at the point of junction of the quartz with these strata. On examining the Hills about Kalikao and Dcussa, where there are long straight parallel ranges running nearly north and south, with strata tilted up at an angle of about 43° dipping to the west, we found long dykes of upheaved chlorite, quartzite and mica schists; hyaline white and rose quartz, transition slate, broken beds of quartz, conglomerate and sandstones; at the points of junction of the quartz, sandstones, schists and slate, there were pure manganese and iron with crystals of schorl, garnet,

tourmaline, chrichtonite, lepidolite and pierolite. On the Hills near Ramghur, Mohunpoora and Ambèr the strata were not so promising, being chiefly quartzite whetstones, sandstones with impure tabular quartz. In these localities however, fine building stones are quarried. Two other important discoveries were made, one of gypsum or sulphate of lime, apparently in considerable quantities, amongst the limestone fifteen miles from Jeypore. This will be of great use in making the moulds, casts and ornaments required in the School of Arts. The other was of real porcelain in the walls of the palace of Ambèr, and of a coarse description of it still manufactured in the city, with all the materials for the finest description of white tableware and china, procurable in the vicinity and to be found in the bazaars, almost identical with the porcelain materials of China.

Dr. Valentine discovered in one of the pieces of clay that we purchased in the bazaar, said to be plentiful in the vicinity of Jeypore, impressions of two shells resembling spirifer, a very important fossil of the transition period; further search and enquiry should immediately be made in the localities where this clay is dug, as it might lead to very important results.

There are some other points of great importance which I think it my duty to bring to your notice, as the Maharajah has shewn, by his liberal-minded acts that anything calculated to develop the resources of the Jeypore territories, or provide useful or intellectual employment for the community, meets with considerate attention.

The roads in many parts of the territories are in first-rate order, and as fine as any in India, but this is partly neutralized by the bad state of a portion in the adjoining territory of Bhurtpore. A representation of this to the political Agent at the Court of His Highness the Maharajah of Bhurtpore might stimulate the completion of this line of road, which I believe has been for two years under repair. When the road is completed an outlet might be found for the white, grey, yellow and black marbles of Jeypore, which are of the finest quality for statuary and building purposes, but seem to have been little exported since the construction of the Taj, Akbar's Palace in Agra, and his exquisitely tasteful tomb at Secundra. The art of carving in marble is still kept up in Jeypore, and it ought to be more encouraged. I should like to see the beautiful white, yellow and black marbles of Mackrana and Dagouta applied to statuary purposes, and with the view of making a beginning, I have left with Dr. Valentine casts in wax, pitch and dammer, of 16 well marked hands, feet, and arms of some of the tribes of Madras, which I should like the carvers to copy for our school of arts in Madras. I could send about 30 in all, and if they are well copied, I will send afterwards busts, statuettes and figures to be copied. I may perhaps be allowed to offer suggestions regarding some of the public institutions of Jeypore, which I omitted to

notice in my letter to His Highness the Maharajah. The Medical Hall and the dispensary for the preparation of medicines promise to be most important undertaking. I have pointed out to Dr. Valentine the kinds of apparatus, stills, furnaces, machinery and appliances that will be required, and where they are to be procured. Further agency will be necessary for carrying out this scheme. I think that young men could be specially trained for this department under Dr. Wyndowe, the Professor of Chemistry, and Dr. Bidie, the Professor of Materia Medica, in Madras. Well qualified agents for assisting in the native Dispensary and the Lying-in Hospital could also be found in Madras or Calcutta.

Employments are much required for the prisoners in the jail. I would recommend weaving, paper-making, the manufacture of rope, string, and thread from the fibre of the *Calotropis gigantea* or, Akhi, the Plantain and Pine-apple, all of which are plentiful about Jeypore, and are allowed to go to waste; you could not do better than take as a model the admirable central jail of Agra. I have seen several of the above manufactures profitably introduced into jails in the Madras Presidency, Bangalore, and Mysore.

Another subject demanding very special attention, is to find useful and profitable employment for the very large class of dancing girls who seem to be far too numerous in Jeypore. I understand that there are upwards of 10,000 of this class publicly entertained in the palace and temples of the city. In upper India, this is becoming a dangerous and a degrading element, sapping the very foundations of nearly all classes of Indian society. Trained to a life of indolent ease, luxury and idleness, the poor helpless dancing girl is often sold by her parents, who think that by dedicating her to the cause of religion, she is well provided for, but alas, the life of most of this class is a melancholy scene of continued vice, depravity, debauchery, and wretchedness. The whole system is one of gigantic deception and fraud leading to intrigue, jealousy and misery, not only to individual families but to the whole Hindoo community, training a race of idle, vicious, extravagant women to minister to depraved licentiousness, under the mask of religion, and training up in vice a population inured from infancy to scenes of frightful degradation. As a remedy for this crying national evil, I would recommend that His Highness should found some establishment for the employment of dancing girls in sewing, knitting, embroidery, drawing, painting, or some such congenial occupation, taking care that they be all taught to read and write English as well as their native language, and that some energetic European matron of established celebrity as a teacher, be placed at the head of the establishment, and that a female industrial school be formed to try to provide active employment for this neglected class of the community. I believe that, with God's blessing, much benefit would result from an undertaking of this kind. I have been led to

make this suggestion from having seen that the statistics of crime are far more appalling in Northern than in Southern India. I believe that His Highness has the spirit and courage requisite for an undertaking of this kind, and that if it were efficiently carried into practice, many an Indian Rane, lady of rank, or neglected Hindoo mother, would ask for a blessing on the head of Ram Sing, the enlightened Maharajah of Jeypore, for having conferred a lasting and substantial benefit on his country, and for having diffused contentment, happiness and peace through many an Indian family. Wishing you, Dr. Valentine, and His Highness success, in these efforts to benefit Jeypore.

Believe me, yours sincerely,

ALEX. HUNTER.

LIST OF STUDIES RECOMMENDED TO BE PROCURED FOR HIS HIGHNESS THE
MAHARAJAH OF JEYPORE, FOR THE SCHOOL OF ARTS,

From Rome.—Copies of bronzes and small figures by Benvenuto Cellini, Donatello, Michael Angelo, some of the draped Roman figures, matrons and warriors. A few nude figures of Venus, Ceres, Mars, Apollo, Hercules, Discolobus, Antinous, &c.

Florence.—Copies of heads, ornamental scrolls and panels from the gates of the Baptistry.

Munich.—Samples of porcelain and pottery ; with the raw materials used in their manufacture.

Vienna a book of modern engravings to show the state of the arts and manufactures in Bavaria at the present time, Medals by Haidinger.

Dresden.—Pottery and porcelain with the raw materials.

Berlin.—Do. do. and good modelled figures in parian, some good chemical saucers and apparatus.

Switzerland.—Carved figures, animals and table ornaments in wood.

Paris.—Some good bronzes, female figures by Pradier, deer and animals by Mene, horses and dogs by Jacquemart, terracotta modelled figures and portraits by Delafosse, porcelain from Sevres, and the raw materials used in its manufacture.

These studies to be ordered by Mr. Broukousky.

JEYPORE, 26th February 1867.

SCHOOL OF INDUSTRIAL ARTS,
MADRAS, 15th November 1866.

MY DEAR DOCTOR VALENTINE,—I have been making enquiries amongst our young men regarding those who would be inclined to go to Jeypore as instructors, in the school about to be established by His Highness the Maharajah. We could send you some good, active East Indians, who have been some years

with us under instruction : one young man, a good blacksmith, who was educated in the Military Orphan Asylum. A young East Indian carpenter, a potter, who understands both the English and the Native methods of work, a fitter, filer, and blacksmith, and one or two young men to teach drawing. The blacksmith, is the best and most intelligent, and can make tools and finish them neatly ; he can also make iron ploughs, garden and agricultural implements. He would be the head man amongst these, and would expect Rupees 40 per month, with the prospect of an increase. The other young men would expect Rupees 20 to 30, and their expenses to Jeypore to be paid. If you think that His Highness would approve of these branches of industry, please let me know by return of post. You will be glad to hear that there is some prospect of my being able to pay His Highness a visit. The Madras Government are going to pay my expenses to visit the Jubbulpore and Agra exhibitions, and to inspect and report upon some schools of art or industry that we have assisted in the Bombay Presidency, the Central Provinces, Lahore, and the Bengal Presidency. I start from Madras about the 15th December and hope to visit Bombay, Surat, Poonah, Nagpore, Jubbulpore, Lucknow, Fattyghur, and Agra. I could point out to you at the exhibition what mineral or other products are of use, and if convenient to His Highness, I might afterwards visit the Jeypore territories, and let you know what branches of industry it would be desirable to introduce. I fear it would not be easy to get a carriage builder or a dentist to go from Madras, as the former are in great request, and none of the latter are available.

The young man Preminger, whom I proposed (in my last letter) to send as a potter, has not been near us lately, but I could make enquiries for him.

Should you desire, at any time, to visit our school, I shall be most happy to show you it, and to give you accommodation when you visit Madras. I could also assist in procuring studies for the Jeypore school, if necessary.

Hoping to see you ere long,

Believe me, yours sincerely.

ALEX. HUNTER.

KORR, 28th January 1867.

MY DEAR MR. CARNAC,—I was so busy up to the time of my leaving Nagpore, that I had not time to call and thank you for all your kind attentions. I saw a good deal of Nagpore and its industry during the short time I remained there, and I wrote out for Mr. Bernard to submit to Mr. Temple, my views on the subject of encouraging those branches of industry that are worthy of being preserved. If you care to see the letter, Mr. Bernard, I dare say, could show it. There are two branches of art industry in Nagpore that I think ought to be encouraged—one is carving in stone, and the other a kind of chasing in brass, that is not unlike bidderyware. I am going to send money

to Mr. Cooper to purchase some of the latter, and I shall be much obliged if you will order for the school of arts, Madras, four circles in stone, similar to the top of the table that you showed me and the same size, but each to be of a different pattern. They are to form the side ornaments of the pedestal of a marble statue that we have in the school. I think this will be a good way of showing off the style of ornament. I have also asked Mr. Bernard to try to get us copies of the stone ornaments of the Gol Bagh, for decorating other parts of our school. We have got offers of encouragement for our school from Bombay and Surat, and I think we ought to return the compliment by encouraging the art industry of Poonah and Nagpore. I shall be glad if you can assist in bringing to notice some of the art industry of the Central Provinces, and if you can get us drawings or photographs of the stone or wood carvings of the old houses, we could engrave them on copper for you and return the patterns in a useful form. With many thanks for all your kind attentions while I was at Nagpore.

Believe me, yours sincerely,

(Signed) ALEX. HUNTER.

JUBBULPORE, 1st February 1867.

MY DEAR COLONEL TRIPE,—I was very much obliged to you for showing me your books, sketches, and coloured photographs, and was quite sorry to see so many art treasures buried, as it were, in an out-of-the-way place like Kamptee. I have no doubt they afford you delight, but I dare say there are not half a dozen people in Kamptee who will care even to look twice at them. It just struck me that I might have it in my power to help you to dispose of some of your books, as there are many of them that would make good useful books for schools of art, and as I have to recommend books for a number of schools and I do not wish to part with ours, I might assist you in disposing of some of yours.

Will you kindly send me the names of the books you wish to dispose of, with the prices opposite each, and I will try to get you the money for them. I should also like to have the names and prices of some of your choice and scarce illustrated books, as I may have to order some more out from England. I mean those books that you don't wish to part with; it is very rarely that I meet with any person in India who cares for art, and still more rarely do I meet with people who spend their money in purchasing illustrated books of a tasteful kind. I hope to be able to assist your friend, Mr. Philip Mitchell in Plymouth, and had I known of his talent sooner, I should have been inclined to send money to him instead of ordering out some chromo-lithographs and sending the money to Messrs. Smith, Elder & Co. to make the selection. I hope to see some fine works on art at Agra and some good sketches, as Mr. Temple and Mr. Carnac

have lent some of their best illustrated books and sketches. We are forming a fine art library in our school, and I got the names of a few good books to purchase for it, from the works in the Bombay Asiatic Society's Library. This dawk travelling is a tedious business, but I am glad of the rest after the hard mental and bodily fatigue I have had lately, and it gives me time to answer letters and to do lighter writing work that I have not been able to attend to sooner.

Believe me, yours sincerely,
(Signed) ALEX. HUNTER.

MY DEAR SIR ALEX. GRANT,—I was much obliged to you for kindly writing to Mr. Curtis regarding my intended visit to Surat, as your letter procured for me a most hospitable reception, and a cordial welcome from the Committee of the School of Art. I was very much pleased with Surat, and spent two or three days in driving about and walking through the old parts of the city, and in taking sketches of the quaint old carved houses. I carefully inspected the school of arts, and in spite of the disparaging way in which Miss Carpenter spoke of it, I found that the two Native Masters had been doing their duty faithfully, and to the best of their ability. I went over the school twice with Mr. Curtis and with the Committee, and we had a long and satisfactory meeting, in which I pointed out to the students, first, what they ought to strive to attain, and showed them some of the works of our pupils and a few of my sketches and photographs. Then at a meeting of the Committee I drew their attention to two or three matters connected with the school that I thought would improve its efficiency. As sending two or three of the most promising pupils, for about two years to the Bombay School of Arts, and then letting them take the duties of the present Master, who ought to go to Bombay for a year or two, to qualify for higher branches of instruction. The carpenter's department had been commenced very creditably in the way that I had suggested some time ago to the former Secretary and Committee. They had selected a very fair carpenter and carver from the town of Surat, and had set him to instruct about 25 pupils, who were progressing very fairly for the time they had been under instruction. I promised to send them some better rudimentary lessons, and practical lessons in joinery and upholstery, with better tools. I thought the two Masters deserved encouragement, and got the Committee to recommend an increase of pay to each. I procured for our school in Madras about a cart-load of carvings from the old houses and buildings in the city; many of these are in finer taste than the modern carvings. I found that there was not much chance of establishing a school of arts at Poonah, but Doctor Beattie, I saw, had established in the jail a good and efficient branch of industry, namely, tent-making, as an employment for the prisoners. Pudom-

jee Pestonjee I called upon, but found that he was not disposed to assist in establishing a school of arts. I thought his sons might assist in photography, but they did not seem inclined. There is one branch of art industry, however, that I hope to give Dr. Beattie orders for from Madras, and that is the carved perforated screens of Poonah. I was much pleased with the designs for the new Government offices at Ganesh Khind. Could you put me in the way of getting copies of the two drawings of the exterior for our school?

(Photographs from these drawings have since been kindly procured by Sir Alex. Grant.)

Believe me, yours sincerely,
(Signed) ALEX. HUNTER.

To Reverend Dr. WILSON, Bombay, dated 1st February 1867.

A letter somewhat similar to the one for Sir Alex. Grant, but intimating that I had been hospitably received by Mr. and Mrs. Cooper at Nagpore, and that I had been much pleased with their native school and with a vernacular school in the old city, and asking Doctor Wilson to put down my name for a copy of the Book of Photographs of the Tribes of Western India, and to ask the Hon'ble Mr. Newton to put down my name for the Books of Photographs of Ahmednugur, Beejapore and the tribes of Western India, for which the letter press was prepared by Dr. Wilson. These two for the Madras School of Arts to be paid for out of our earnings by instalments, or by the Madras Government, if they will sanction the expenditure.

SCHOOL OF ARTS,
MADRAS, 1st May 1867.

MY DEAR DR. WILSON,—As I have now completed my tour of inspection of schools of art and exhibitions, and have a little time to spare, I will give you my impressions of the present state of education in the different parts of India that I have lately visited, and of the relative effects that seem to have been produced by the introduction of European Classical and English systems. I shall not pretend to enter minutely into the subject, as I had not time to enquire into the relative merits of Vernacular and English systems. I believe that education is now, making very rapid strides all over India and that the natives thoroughly appreciate its importance, and they have a great desire to acquire a knowledge of English. As far as I can judge, most progress has been made in the Madras Presidency in this direction, and least in the Upper Provinces. We have had the advantage of the labours of many conscientious and hard-working Missionaries for upwards of two centuries in the Southern parts of this Presidency, and one very interesting effect that I have observed from their labours is, that we can put more confidence and trust in our young

men and women, and they have less haughty pride and less ostentation or love of dress than I found in the educated natives of Bombay or Calcutta. Another beneficial effect that has resulted from our English systems of instruction in Southern India is, that we can teach them greater varieties of work, can explain our meaning better in our own language, and I believe that the natives have more respect for us when they learn our language than when we acquire theirs, and that they will put their hands to greater varieties of work if they see us do the same. Our book learning, I fear, is puffing up many of the higher classes of natives with pride. I should like to see more handicraft occupations introduced along with our other instructions. For some of my views on this subject, I must refer you to my printed letters to Sir Bartle Frere and Mr. J. Griffiths. As far as the fine arts are concerned, I think we owe a deep debt of gratitude to you, Dr. Duff, the Rev. John Anderson, Mr. Symonds, and a host of other zealous friends who are now working in the Mission cause, for having paved the way for the reception of art and industry, and for having trained a great number of young men who are now publicly and privately acknowledged as trustworthy and conscientious teachers. The photographs that I gave you of some of our Madras teachers from the Mission and Orphan Schools show, at a glance, that Christian education is raising the character of the natives. May you and your co-adjutors in this good work long be spared to aid the cause of civilization for India.

Believe me, yours sincerely,

(Signed) ALEX. HUNTER.

CALCUTTA, 4th March 1867.

MY DEAR DR. BONAVIA,—I regret exceedingly that it was not in my power to visit you at Lucknow, as I was detained at Jeypore a week longer than I expected, and was obliged to hurry down to Calcutta as my time of leave had expired. I was very anxious to see Lucknow, Cawnpore, and Benares, on my way but could not spare time to inspect the antiquities. I was told by Mr. Adam at Agra that you had very kindly offered to give me accommodation, but I regret that it was not in my power to accept your offer. There are two or three matters of business in which I hope you will be able to assist me. I wish to procure for the school of arts in Madras a set of the native figures that are made in clay at Lucknow, and painted, I got some from T. Trotter, Esq., of the Civil Service in return for some lessons in drawing and engraving that we sent from Madras, and I thought that there was a school of arts in Lucknow, where these were made, but I hear there is not and that the natives just make them at their own houses. I look upon these at the best specimens of pottery made in Lucknow, and far superior to the other wares which I saw at the Jubbulpore and Agra Exhibitions. The potters seem to be copying in clay articles from the Illustrated News and Art Journal that are made in silver or

bronze, and consequently not suited for pottery. I also saw at Agra sets of native figures in clay, with cloth clothes, said to be made at Benares. It struck me that the modelling of some of them was superior in character to those of Lucknow, and that the latter were copies of the Benares figures by some one who had seen Parian or Dresden figures and was attempting to copy the style in a more legitimate way without cloth, I shall be much obliged if you can procure for me complete sets of both kinds of figures and of a good size, we are trying to improve the hands and feet, and the Anatomy of figures of this kind and to teach the natives to make them in real Parian or hard fired stoneware, colored in the furnace. His Highness the Maharaja of Jeypore is also anxious that we should send him a few finely modelled figures to be copied by his workmen in statuary marble, if you can procure sets for me first, I will select a few to copy and will model better hands and feet, and send the copies to Jeypore.

Another business that I have been asked to undertake for Lord Napier, is to try to procure a copy of the translation of Napier's Logarithms published in sanscrit by Jeysing, the famous astronomical Rajah of Jeypore. I made enquiries for it there, but was told that most of the books of science in the library of the Palace had been sold, as waste paper by Maunsing another Rajah, but that I should probably be able to get copies of the book at Lucknow, or Benares, where copies of books of science have been preserved. His Excellency Lord Napier, will I am sure be very much obliged if you can purchase copies of this work. I have had a delightful inspection of schools of art and exhibitions, and if you care to hear what I have been doing, I will send you printed reports shortly; any expenses you are put to, on my account, I will gladly pay. Please have the articles carefully packed in boxes, and sent to my Madras Agents, Messrs. Binny & Co. through Messrs. Grindlay & Co. of Calcutta. Hoping you will excuse the trouble I am giving.

Believe me, yours truly,

(Signed) ALEX. HUNTER.

SCHOOL OF INDUSTRIAL ARTS,
MADRAS, 16th April 1867.

MY DEAR DR. BONAVIA,—In reply to your letter of the 3rd instant, on the subject of establishing a school of arts at Lucknow, will you kindly inform Mr. Strachey, the Chief Commissioner, that I shall be happy to render such assistance as lies in our power, and I believe, that from the progress that has already been made by the workmen at Lucknow, we shall have very little difficulty in teaching them to improve their manufactures. What is chiefly required is to give them better prepared materials, and to show them how to fire them better in proper furnaces, using felspar and quartz finely ground up with their clays. Many of the works in clay that I saw at the Agra and Jubulpore Exhibitions, showed that the Lucknow potters had acquired great

dexterity in modelling. I would strongly recommend that this branch of art be encouraged. We shall be able to assist by supplying you with good sets of casts of hands and feet from the best statues of antiquity, and good casts from life, of hands, feet, arms, and legs of well-selected living figures of the native tribes of this Presidency. If you wish it, I could also order out for you from Paris, London, and Rome, plaster casts of some of the best figures used in schools of art. In the meantime, I will put up and despatch to your address, a number of drawing lessons of different kinds, and photographs of sketches, antiquities, scenery, figures of different casts and busts taken from nature; ditto of furniture bronzes and statues. From these you would be able to judge what branches of art or industry are likely to be of use in your vicinity, and to meet with encouragement. I think it of great consequence that we should try first to encourage and improve those branches of art for which the natives have shown any particular aptitude, and afterwards we may try to improve other departments. I enclose an order for Rs. 35 on my agents in Calcutta, Messrs. Grindlay and Co., and shall feel obliged by your ordering for our school of arts about 18 of the best modelled native figures representing the trades and occupations of the natives, the figures to be about ten inches high. I must leave it to your taste, to select the most characteristic figures. If more money is required, please let me know, and I will remit you an order. I will despatch to your address by post, copies of printed and illustrated reports upon our school, which will show what we have been doing. In the course of a few months we could probably send you a teacher of drawing and a young man to teach improved methods of making and firing pottery and building materials. We might also train for you a good carpenter and a good blacksmith. We are despatching several teachers to Jeypore and the Central Provinces.

We shall also be able to assist you in getting up a museum of science and art, but I should require to have some funds placed at my disposal to assist in making purchases. If you let me know the particular departments for which you require specimens, I could afterwards assist you to procure samples. I suppose you would require woods, dyes, mineral and other colours, fibres, cloths, works in metal, ivory, horn, sandalwood, stone, marble, &c., cements, manures, useful minerals, building, roofing, and paving stones and such articles.

I remain, yours truly,
(Signed) ALEX. HUNTER.

SCHOOL OF INDUSTRIAL ARTS, MADRAS, 11th March 1867.
To
HEERA LALL SEAL, Esq.
Kolootollah, Calcutta.

MY DEAR SIR,—I was very much pleased to hear of the success of your

experiments to improve the pottery of India, and that you were satisfied with the young man Webb, whom we have sent about five years ago from the School of Arts in Madras. I was glad to see that he had been so successful with the firing and glazing of white pottery and that the manufacture of glazed insulators, roofing, flooring and paving tiles, cups, white bowls, plates and jars, was likely to prove so remunerative. I was unable to call upon you so early on Thursday as I expected, having been detained longer at the Asiatic Society's Library and Museum than I expected, and on Friday, when I called, I had only half an hour to spare, having been engaged that day with Dr. Oldham at the Geological Museum, Mr. Locke at the School of Arts, and Dr. Cleghorn at his office. I heard that you were busy when I called, so I looked over the pottery that you had just received from Colgong, and was glad to find it so white and of such good quality. I would recommend a little more felspar and flint to be ground with the clays and the glazes of the yellow ware, which is not so good as the white, and would bear more firing in the biscuit state, to prevent crazing of the glaze. I may also mention to you that in Madras we found some of the white lead from England so much adulterated (varying from 14 to 30 per cent. of impurities) that we often had similar failures in our yellow and cane-coloured wares. We now make our own white and grey oxides of lead so as to avoid losses in glazing. I shall be much obliged if you will put up for His Excellency Lord Napier and for our School of Arts in Madras, samples of the different articles that you make at your pottery works at Colgong,—one sample of each for each collection, and please send them to my Agents, Messrs. Grindlay and Co. I also wish to have a good set of the clay figures that are modelled at Kishungur; and if you let me know the amount due for them and for the pottery, I will pay for them.

Wishing you success in your efforts to turn to use the raw products of Colgong, and to find profitable employment for the natives of India.

Believe me, yours truly,

(Signed) ALEX. HUNTER.

To

ALEXANDER HUNTER, Esq., M.D.

CALCUTTA, 1st April 1867.

Superintendent, School of Industrial Arts, Madras.

MY DEAR SIR,—I duly had the pleasure of receiving your very kind and obliging note of the 11th ultimo per "Mongolia," and tender my grateful thanks for the various hints and suggestions you were good enough to offer for the improvement of my pottery.

I owe you an apology for not returning an early reply, which unfortunately was owing to my having been confined to bed till lately from illness, and hope therefore I shall be excused for the delay.

As I have already mentioned, I expect by the next steamer a thorough-bred potter from England engaged for my concern, and so soon as he arrives, I shall not only communicate to him the advices contained in your note, but shall inform him, for his guidance, of the various others which you verbally gave to me.

Nothing will give me greater pleasure than to forward samples of the different articles made at my pottery works, both for His Excellency Lord Napier, and your School of Arts. I am writing to my present Manager to collect and send, me, by the first opportunity, two sets of all the things that are manufactured there, and as directed, will forward them to your Agents by the first opportunity after their receipt.

As regards the clay figures modelled at Kishungur, I have sent for the native potters who make them, and shall give an order for a good collection of them, and if possible, accompany them with the sets of pottery of my own.

Trusting you are in perfect health.

I remain, my dear Sir,

Yours truly,

(Signed) HERA LALL SEAL.

MADRAS, April 26th, 1867.

MY DEAR MR. GRIFFITHS,—As I have now completed the tour of inspection of schools of art and exhibitions, I sit down, agreeably to my promise, to give you my impressions of the present state of art in India. I have been very agreeably surprised to find that both the fine and industrial arts are progressing steadily and making an impression on the public. The taste of the Europeans and Natives is being gradually improved, and they can appreciate beauties of form or of colour; but as yet very little has been done for the encouragement of the fine arts beyond portrait-painting, which has met with some encouragement in Bombay, Poonah, Calcutta and Agra. Photography seems to have interfered with portrait-painting in all parts of India, yet there are very few really artistic and good photographic portraits produced. I have been surprised to find so much artistic taste amongst officers and ladies in India. The Agra Exhibition contained a very large and creditable display of artistic talent especially in water-colour sketches from nature. The department of photography was also well represented. From these two, one is able to form a very good opinion of the natural beauties of the scenery of India. The Neilgherries seem to me to be the finest and most picturesque, next to them the scenery of Rajpootana and Cashmere; the latter, as represented by Messrs. Bourne and Shepherd in their photographs. The views of the Neilgherries and Shevaroys by Major Sankey, that I shewed you, were to my mind the most artistic; those by Miss Gell were also in fine taste and truthful in colour and details. The sketches of scenery and antiquities by Mr.

Temple, the Commissioner of the Central Provinces, now of Hyderabad, are very bold, and some of them full of beautiful detail. Mr. Temple has a most wonderful command of his pencil, brush and pen, and must have been very industrious to take such a number of fine sketches.

Some very careful water-colour drawings of Cashmere and the Himalayas with picturesque landscape scenery, have been drawn by Mr. Beck, Captain Sitwell, and Lieutenant DeFabeck. The latter officer shewed a versatility of artistic talent, by exhibiting sketches in oil, distemper, and water-colours. Major Campbell of the 22nd M. N. I., Bangalore, exhibited some very careful landscapes in oil, rather thinly and minutely painted. Mr. Jansen, who has been painting large portraits at Poonah, was decidedly the best in this department of art.

I saw some magnificent scenery on my late tour of India. The most striking parts were the Western Ghats near Paulghat, Carwar Bay. The entrance to Bombay and the view of the city from Malabar Hill, one of the finest views in the world that I have seen. The Bhore Ghat is very grand, but not equal to our Neilgherry scenery. Surat is a beautiful, quaint and picturesque city; some of the forest scenery of the Central Provinces is very rich and picturesque. Much of the river scenery of Bengal is very beautiful and varied from the mixture of boats, figures, antiquities, and luxuriant foliage. I was very much struck with the elegance and taste displayed in the architecture of Upper India. I think the Rajpoot and Mahomedan styles will take rank along with the best kinds of Grecian, Gothic, or Renaissance, and they possess several advantages in construction, lightness, durability, and appropriate application of ornament that render them peculiarly applicable to public buildings in warm climates. I would recommend you to purchase some of the fine photographs of antiquities in Agra, Delhi, Rajpootana, Deeg, Bhurtpore, and Lahore, by Messrs. Bourne and Shepherd, or some of the beautiful Photographs of Neilgherry scenery by Captain Lyou and Messrs. Nicholas Brothers. The Taj is a building *sui generis*, very grand and very tasteful, but slightly modified from the pure Mahomedan by the introduction of Italian taste. The Martinière and other modern buildings at Lucknow are modified by Renaissance ornament. I have lost my opinion of Hindoo architecture, since I saw these elegant Rajpoot and Mahomedan buildings. There is a grandeur about some of the early pure Hindoo temples, but most of the modern ones are over-crowded with ornament of too heavy and massive a style for the space to be covered. Some of the Hindoo ornaments carved in stone are rich, but they have not always been judiciously applied.

I come now to the costumes of the natives of India, and here we have a wide field for study. Bombay and Calcutta afford as great varieties of costume as are to be met with in any cities in the world, but there is a great want

of taste in many of the Eastern dresses, particularly in Bombay. The clothes are accumulated about the heads of the men, or the shoulders of the women, and drawn up tightly between the legs in a very ungainly way. I thought there was a greater amount of dandyism in dress in the streets of Bombay than is to be seen in Paris or London. The Parsee ladies seem to take especial care to disfigure themselves. To my mind the best costumes for men in India are those of the Todas and Kotah tribes of the Neilgherries, which resemble the old Roman Toga; next to them are the graceful, full rich dresses of the Rajpoots and Pathans. Many of the Mahomedan dresses are also in good taste, though effeminate. Mahomedan women again are dressed like men with awkward tight-fitting trousers. Some of the Hindoo women in Upper India wear their drapery arranged very much in the style of the Roman matrons in numerous small hanging folds. But of all the female costumes, those of Madras and Southern India most resemble the Grecian in taste, elegance, modest simplicity and harmony of colour. I hope hereafter to be able to substantiate by photographs, etchings or engravings, much of what I have said regarding Indian art. In the accompanying report and correspondence, you will find many of my views on art detailed at greater length. I believe India affords one of the finest fields for the artist in every department of his profession, and that the natives have an aptitude for acquiring art quite equal to that of students in European schools. It is our duty to try to guide and direct them into the best and purest channels of study. I look to you and your able coadjutors in the school of arts in Bombay, and to my friend, Mr. Hooper Locke in the school in Calcutta, to aid us occasionally with your advice and assistance, in the firm belief that both the fine and industrial arts are levers by which the education of the whole community in India may be raised.

You know as well as I do that art may be directed into proper or improper channels, and that the tendency even in European schools is sometimes to run in the wrong direction. I have observed that amongst the natives of India, art of a low and debasing kind finds favour, and that it is strangely interwoven with the irreligion. The educated natives point to the mythologies of ancient Greece and Rome, and try to find there an excuse for their licentious obscenities, but it is our duty to try to lead their art into some of the best and purest channels, especially into the fields of Indian nature, and to the study of the works of creation. A very wide field of usefulness is opening up to us, and if we do our duty honestly, conscientiously and with a high aim, I believe firmly that God's blessing will accompany our labours. The great tendency with the natives is towards self-glorification, let us show them that the fine arts may have a higher aim. Wishing you and your friends success in your efforts.

Believe me, yours sincerely,

(Signed) ALEX. HUNTER.

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